



PATENT  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	)	
	)	Examiner: V. Faison
ARNDT	)	
	)	Art Unit: 1755
Serial No.: 10/620,201	)	
	)	
Filed: 7/15/03	)	
	)	
For: FINGERPRINT COMPOUND	)	
AND METHOD	)	

DECLARATION OF DOUGLAS C. ARNDT

I, Douglas C. Arndt, hereby declare as follows:

1. I am the inventor of the above-named application.
2. At the request of the assignee's counsel, Harold L. Jackson, I have reviewed the Office Action dated November 17, 2004 in the above application and the references relied on by the Examiner in rejecting Claims 1-21.

QUALIFICATIONS

3. My qualifications for the opinions expressed herein are as follows:
  - a. I have been interested in chemistry and physics since my early schooling and have read many books in those fields over the years. I graduated from Thousand Oaks High School, Thousand Oaks, California in 1977 and received an APICS Certificate from UCLA (via extension courses) in production and purchasing management in 1986. My college courses included engineering, calculus, mechanics of solids and other physics, chemistry related subjects, as well as business related courses.

b. During 1978-83 I was employed by Westlake Magnetics (a manufacturer of stators and armatures for electric motors for the aerospace industry located in Westlake, California) as a machinist and production supervisor.

c. During 1983-1990 I worked full-time for Identicator Corporation, located in Marina del Rey, California, initially as the production supervisor and subsequently (i.e., 1984) as the production manager. In that capacity I was responsible for the production scheduling, product improvement and resolution of chemical and other problems associated with the manufacture of individual fingerprint inks, including nonstaining inks, ink dispensing pads and inkless fingerprint systems. I was also responsible for the development of new products. Patents relating to fingerprint technology, which have issued in my name as the inventor or co-inventor, are U.S. Patent Nos. 4,983,415; 4,917,987; 4,705,299; 5,737,071; 6,488,750; 5,919,292; 6,027,556 among others.

d. In 1990 I joined HOH Water Technology Corporation (a developer of water purification equipment located in Laguna Hills, California) as the production manager in charge of placing a prototype water demineralizer apparatus (removal of salt from water) into production. In that capacity I dealt with fluid flow and various types of chemical reaction problems. During this time I continued to consult for Identicator.

e. In 1992 I rejoined Identicator Corporation, later referred to as Identicator, Inc., ("Identicator") as a consultant and personally manufactured or supervised the manufacture of most of the inkless reagents as well as carbon based pigmented inks distributed by the company. Around December 2001 Armor Holdings, Inc. acquired the assets of Identicator, Inc. and subsequently such assets, including the subject application, were transferred to Armor Holdings

Forensic, Inc. ("Armor Holdings").

f. I have been employed by Armor Holdings, since the acquisition, as the director of research and development of fingerprint based products.

#### COMMENTS CONCERNING THE STATEMENTS IN THE OFFICE ACTION

4. The invention described and claimed in this application resulted from my efforts to render ink and inkless reagents, suitable for recording the unique surface characteristics of an object such as a person's fingerprint area, shoe sole, etc., more readily removable from the object after the recording process is completed. While typical inkless reagents have less visible residue, i.e., stain, on a person's fingerprint area than a carbon pigmented ink there is still a need to remove the residue. As a result of my efforts I discovered that such oil based inks or inkless reagents can be made water soluble by the addition of a nonionic surfactant as is described in the subject application. Consequently, the residue remaining on the object, such as a person's fingertip or shoe sole, can be readily removed by simply exposing the object to ordinary tap water, e.g., by rinsing or wiping with a damp cloth.

5. Armor Holdings is presently manufacturing and selling several ink and inkless reagents formulations which include a nonionic surfactant as discussed in this application and such formulations are being well received in the fingerprinting industry.

6. I am familiar with the Vassiliades Patent No. 4,879,134 ("134 patent") referred to in the Office Action since the patent has been cited as a reference during the prosecution of some of my earlier applications. While the patent purports to teach an inkless fingerprint formulation, it is my opinion that the '134 formulations are better placed in the nonstaining (i.e., substantially nonstaining) category which still leaves some residue, i.e., stains, on a person's fingertip. An

inkless fingerprinting formulation functions by creating an image of the fingerprint area through a chemical reaction of two reagents during the recording process. See my U.S. Patent No. 4,983,415.

7. The '134 patent teaches nonstaining inks which require no chemical reaction during the recording process. Regardless, however, of which category '134 ink best fits in the patent does not teach the use of a nonionic surfactant in a fingerprint ink formulation. While the patent refers to a dispersant it does not mention "nonionic surfactant" nor disclose a solvent that is properly classified as a nonionic surfactant. Neither alkylated glycol ethers, ether acetates nor soya oil are nonionic surfactants and do not encompass ethoxylated oil. Soya oil is just an oil, not an alkoxyated oil. Alkylation is not the same as alkoxylation or its subset ethoxylation. Ether acetate is an industrial solvent commonly grouped in the family of ester solvents, e.g., a solvent marketed by Dow Chemical Co. Under the trademark Cellosolve. Alkylated glycol ethers too are industrial solvents as exemplified by Carbitol acetate. Carbitol is also a registered trademark of Dow Chemical Co. None of the above oils (soya oil) or solvents (ether acetate or alkylated glycol ethers) if added to the inks disclosed in my application, would make the inks soluble in water thereby permitting the ink residue to be readily removed through a simple application of water.

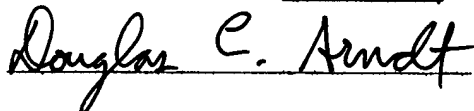
8. I respectfully disagree with the Examiner's statement that alkylated glycol esters or soya oil can be properly classified as nonionic surfactants or that the '134 patent teaches or suggest my invention.

9. The Kuno et al publication No. US2003/0133958A1 ("958 publication") which was cited against claims 14 and 23 relates to entirely different field, i.e., whitening agents for the

skin. This publication teaches the use of a maslinic acid as a whitening agent for the skin. The '958 publication does disclose PEO alkyl ether, but this is not an ethoxylated oil. I do agree that a derivative of maslinic, in the form of an ethoxylated fatty acid, is a nonionic emulsifier. However, roles played by the nonionic agents in my invention and the '958 publication are not the same, i.e., to render fingerprint inks readily soluble in water versus whitening an individual's skin. I do not believe that one skilled in the fingerprint ink field would look to the skin whitening field for a solution to the problem I faced.

10. All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true, and further, that these statements made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or document or any registration resulting therefrom.

Signed this 17<sup>th</sup> day of December, 2004 at Jacksonville, Florida.



Douglas C. Arndt